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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,544	08/19/2003	Chao-Yi Yuh	B429-059	4273

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EXAMINER	
WALKER, KEITH D	
ART UNIT	**PAPER NUMBER**
1745	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/643,544	YUH ET AL.	
	Examiner	Art Unit	
	Keith Walker	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-22 and 34-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-22 and 34-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Remarks

Claims 1, 3-22 & 24-37 are pending examination.

Claims Analysis

Concerning claims 1 & 3-17, the claims are drawn to a compliant member and the use of that compliant member in the fuel cell and in a wet seal area is not given patentable weight. The limitations further defining the wet seal area and the fuel cell are also not given patentable weight. It is held that a recitation with respect to the manner in which a claimed product is intended to be employed does not differentiate the claimed product.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3-6 & 8-17 rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,902,692 (Batawi).

Regarding claims 1, 3-6 & 8-10, Batawi teaches a compliant member comprising a planer body member having sections extending outwardly of the plane of the body member (Fig. 3, 3: 48-51). The planer body member is flat and one side of each section extending outward is joined to the body member. The compliant member can be made from an alloy spring (1:20-30) and when compressed the angle of the compliant

member is reduced and when fully compressed the compliant member will lie in the same plane as the planer body member.

Regarding claims 11-17, the sections are rectangular and arranged in rows such that one side is attached to the body member. One side of each section extends along one of the length and width of the body member and the rows of sections are offset from each other in the length of the body member (Fig. 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,902,692 (Batawi).

Batawi teaches using a spring with the tabs extending out from the planar body. Batawi is silent to the length of the extending tabs or to the precise angle formed by the tabs and the planer body.

The tabs in the figure 3 certainly point to the angle being within the range of 2 – 50 degrees. It is considered to be obvious to one skilled in the art at the time the invention was made to fabricate a spring within the instant range for the purpose of manufacturing consistency. If the angle is too large, then the spring could be bent backwards or fold on itself as the fuel cell is assembled. If the angle is too small, then the mere functionality as a spring is lost. As for the length of the sections, it is held that

a modification of size in a component is an obvious matter of design choice. A shorter length sustains more force before full compression, while a longer length requires less force but has a larger range of motion. A change in size is generally recognized as being within the level of ordinary skill in the art (*In re Rose*, 105 USPQ 237). No apparent criticality is given to the instant ranges.

3. Claims 18-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,609,595 (Nickols) in view of US Patent 4,604,331 (Louis) and US Patent 3,826,583 (Pare).

Nickols teaches a fuel cell assembly having a wet seal area defined by the sealing flanges, which border the active fuel cell area. Folding over the edges of the plate structure forms the sealing flanges. A metal current collector (12) abuts the active area, which comprises the electrode assembly, and extends into the wet seal area (Figs. 1 & 2; 4:10-55). Compliant members made of spring sheets are located in the wet seal area and the compressibility of the spring sheets accommodates tolerances in the thickness of the associated electrode assembly. Similar to the instant application, as the electrodes shrink and creep the spring sheets adjust the compression of the sealing flange (7:10-25).

Nickols does not teach the use of a cantilevered spring for the wet seal area.

Louis teaches a reinforcing spring that is dimensioned for the wet seal area and acts to add compression to the sealing flange. Louis shows a different spring being used in the same wet seal area for the same reason as both Nickols and the instant application. Pare teaches different compliant member spring configurations that

function equivalently (Figs 1-9). The compliant member is formed by multiple independent springs that when fully compressed lie with in the planer body. The compliant member of figure 6 is a hat shaped spring similar to the one used by Louis and the figures 1 & 2 show cantilever type springs. So the cantilever spring is an equivalent spring to the hat spring of Louis. Since the hat spring of Louis is shown to be a functional equivalent structure, solving the same problem and located in the same area, as the instant application, it would be obvious to one skilled in the art to substitute a cantilever spring for the spring sheets of Nickols.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the spring sheets of Nickols with the cantilever springs as an engineering design choice since the two springs are considered functionally equivalent.

Regarding claims 27 & 28, the tabs in the Nickols' figures certainly point to the angle being within the range of 2 – 50 degrees. It is considered to be obvious to one skilled in the art at the time the invention was made to fabricate a spring within the instant range for the purpose of manufacturing consistency. If the angle is too large, then the spring could be bent backwards or fold on itself as the fuel cell is assembled. If the angle is too small, then the mere functionality as a spring is lost. As for the length of the sections, it is held that a modification of size in a component is an obvious matter of design choice. A shorter length sustains more force before full compression, while a longer length requires less force but has a larger range of motion. A change in size is generally recognized as being within the level of ordinary skill in the art (*In re Rose*, 105

USPQ 237). No apparent criticality is given to the instant ranges. As any of the springs are compressed the angle between the tongue and the planer body will be reduced.

Response to Arguments

Applicant's arguments with respect to claims 18-37 have been considered but are moot in view of the new ground(s) of rejection based on the amendments.

Applicant's arguments filed 3/14/06 with respect to Batawi have been fully considered but they are not persuasive.

Applicant argues Batawi's compliant member does not teach or suggest the use of the plate structure as defining a wet seal, being arrangeable in a wet seal or configured to be fit in a wet seal. As stated above, this is seen as a recitation of the intended use of the claimed invention and must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The tongues (51) created in the plate structure inherently have compliance to the plate structure creating a compliant member. Since the tongues are cantilevered to the planer body in a manner exactly as the applicants and as the leaf spring taught by Pare, discussed above, the tongues are inherently compliant. The dimensioning of the planer body so that it can be fit into the wet seal area is also seen as intended use.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Walker whose telephone number is 571-272-3458. The examiner can normally be reached on Mon. - Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KW

DAH-WEI YUAN
PRIMARY EXAMINER